STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
State Revolving Fund Loan Program
L & C Tower, 8th Floor
401 Church Street
Nashville, TN 37243

FINDING OF NO SIGNIFICANT IMPACT
Approval of Facilities Plan
Water and Wastewater Authority of Wilson County (Wilson County), Tennessee
Project No. SRF 2008-215

January 14, 2008

The National Environmental Policy Act requires federally designated agencies to determine whether a proposed major agency action will significantly affect the environment. One such major action, defined by Section 511(c)(1) of the Clean Water Act, is the approval of a facilities plan prepared pursuant to Title VI of the Clean Water Act. In making this determination, the State Revolving Fund (SRF) Loan Program assumes that all facilities and actions recommended by the plan will be implemented. The state's analysis concludes that implementing the plan will not significantly affect the environment; accordingly, the SRF Loan Program is issuing this Finding of No Significant Impact (FNSI) for public review.

The Water and Wastewater Authority of Wilson County has completed the facilities plan entitled "SRF for Water and Wastewater Authority of Wilson County" dated October 15, 2007. The facilities plan provides recommendations for improvements to the collection system serving the Water and Wastewater Authority of Wilson County (Authority). The proposed project consists of the installation of approximately 45,000 linear feet (LF) of new 8-inch and 10-inch diameter polyvinylchloride (PVC) forcemain interceptors to transport wastewater to the Pine Creek Golf Course's Logue Road Wastewater Treatment Plant for treatment and approximately 45,000 LF of 4-inch diameter and 6-inch diameter PVC reuse lines in the same trench in 5 areas of the Authority's service area. The recirculation and reuse lines eliminate surface water discharge to streams in the planning area. The total estimated project cost is $2,751,769. A State Revolving Fund loan in the amount of $2,751,769 has been requested for this project.

Attached is an Environmental Assessment containing detailed information supporting this proposed action. Comments supporting or disagreeing with this proposed action received within 30 days of the date of this FNSI will be evaluated before we make a final decision to proceed. If you wish to comment or to challenge this FNSI, send your written comment(s) to:

Mr. Sam R. Gaddipati, Environmental Manager
State Revolving Fund Loan Program
Tennessee Department of Environment and Conservation
L & C Tower, 8th Floor
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or contact him by telephone at (615) 532-0445 or by e-mail at sam.gaddipati@state.tn.us.

ENVIRONMENTAL ASSESSMENT

Water and Wastewater Authority of Wilson County (Wilson County), Tennessee
Project No. SRF 2008-215

January 14, 2008

A. PROPOSED FACILITIES AND ACTIONS; FUNDING STATUS

The facilities plan provides recommendations for improvements to the collection system serving the Water and Wastewater Authority of Wilson County (Authority). The facilities plan provides recommendations for improvements to the collection system serving the Water and Wastewater Authority of Wilson County (Authority). The proposed project consists of the installation of approximately 45,000 linear feet (LF) of new 8-inch and 10-inch diameter polyvinylchloride (PVC) forcemain interceptors to transport wastewater to the Pine Creek Golf Course's Logue Road Wastewater Treatment Plant (WWTP) for treatment and approximately 45,000 LF of 4-inch diameter and 6-inch diameter PVC reuse lines in the same trench in 5 areas of the Authority's service area. The recirculation and reuse lines eliminate surface water discharge to streams in the planning area. The facilities planning area and project location are indicated on Figures labeled Attachment A-1, Attachment A-2, Attachment B-1, Attachment B-2, Attachment C-1, Attachment C-2, Attachment D-1, and Attachment D-2 of this Environmental Assessment. Descriptions of the proposed facilities and actions included in this project are listed below:

FUNDING STATUS

The facilities described above comprise the scope of Clean Water State Revolving Fund Loan No. SRF 2008-215 scheduled for funding in fiscal year 2008. The estimated project costs are summarized in the following tabulation:

PROJECT CLASSIFICATIONS	COSTS ($)
Planning Fees	77,336
Design Fees	154,572
Resident Inspection	60,000
Construction	2, 209,600
Contingencies	250,161
TOTAL	2,751,769
State Revolving Fund Loan	2,751,769

The Authority has applied for a $2,751,769 State Revolving Fund (SRF) loan.

B. EXISTING ENVIRONMENT

The Authority's planning area is located in Wilson County in middle Tennessee. A discussion of existing environmental features in the area includes the following:

SURFACE WATERS

Surface waters within the proposed planning area include several tributaries to North Fork Scuggs Creek, J. Percy Priest Lake and several unnamed tributaries. In general, the designated stream uses in the planning area include domestic water supply, industrial water supply, fish and aquatic life, recreation, irrigation, livestock watering and wild life, and navigation. Most of the

tributary streams drain into the Cumberland River that forms the northern boundary of the county. The eastern and southern parts of the county drain into the Stones River that empties into the Cumberland River farther downstream. Drinking water to the majority portion of Authority's customers is provided by Gladeville Utility District. Gladeville Utility District uses wells as source water. Supplemental drinking water is purchased from the West Wilson Utility District, the City of Lebanon, and Cumberland Utility District.

GROUNDWATER

Groundwater in the planning area comes from the Central Basin aquifer which is an Ordivician Carbonate aquifer. Wilson County is near the center of the physiographic region known as the Central Basin of Middle Tennessee. Most of the county is underlain by the Mississippian-age limestone. Outcrops of limestone bedrock are common throughout most of the county. The county is drained by creeks, intermittent drainage ways, and underground caverns.

SOILS

Soil associations occurring in the Authority's proposed project area primarily consist of the Gladville-Rock Outcrop complex, Talbot Silt Loam, and Bradyville Silt Loam. Talbott soils are fine, mixed, moderately deep soils that were formed in clayey material weathered from limestone. Bradyville soils are fine, mixed, deep soils. Gladeville soils are clayey, mixed, with a shallow depth to rock with rock outrock complex, and have a moderate permeability.

TOPOGRAPHY

Wilson County is located at approximately 690 feet above mean sea level. The topography of the area consists of gentle slopes ranging from 2 percent to 20 percent and flat lands.

OTHER ENVIRONMENTAL FEATURES

Several natural areas are recognized in Wilson County for their environmental features including the Lane Farm State Natural Area and the Harding Glade Protection Planning Site. Two Tennessee State Parks, Cedars of Lebanon and Long Hunter, also contain State Natural Areas. These environmentally sensitive areas will not be affected by the proposed project. No wild or scenic rivers or unique scientific areas exist in the Authority's planning area.

C. EXISTING WASTEWATER FACILITIES

The existing Logue Road spray irrigation WWTP is located on the Pine Creek Golf Course in Wilson County. The facility was built in 2001 with an initial capacity of approximately 56,000 gallons per day (GPD). The Tennessee Department of Environment and Conservation (TDEC) issued State Operating Permit No. SOP 99038 to the Authority to operate a system up to a maximum capacity of 300,000 GPD to be constructed in phases. The current recirculating biological reactor WWTP has a treatment capacity of 120,000 GPD. The existing storage pond located on the Pine Creek Golf Course is capable of accepting approximately 50,000 gallons of the treated effluent that is sprayed on the Pine Creek Golf Course. There are no major industrial

discharges and no combined sewers. Other WWTPs in the planning area include the City of Lebanon's WWTP and the City of Watertown's WWTP.

D. NEED FOR PROPOSED FACILITIES AND ACTIONS

The proposed project area is experiencing high rates of residential growth. Traditionally, undeveloped residential areas have been utilizing septic tanks and onsite drainfields for sewage treatment and disposal because of the availability of land. The soils in the proposed project area are not optimal for septic tanks. In addition, the transmission forcemains will provide existing homeowners with options currently not available and eliminate the septic tanks. The reuse lines eliminate discharges to streams in the planning area. This will be beneficial to the environment because of the elimination of possible septic tank failures. The Authority desires to protect public health and the environment by controlling the method of sewage treatment and disposal and providing permitted treatment and disposal to these areas.

Existing and projected facility conditions are shown in the following chart:

EXISTING AND PROJECTED FACILITY CONDITIONS

POPULATION	EXISTING (2007)	PROJECTED (2027)
Authority	1,113	41,300
% Sewered	0%	99%
Planning area Excluding WWAWC	17,438	22,250
% Sewered	38%	44%
Total planning area	18,751	63,550
% Sewered	35%	79%

WWTP FLOWS (GPD)	EXISTING (2007)	PROJECTED (2027)
Domestic/Commercial	32,000	4,000,000
Industrial	3,000	1,000,000
Infiltration	N/A	N/A
Inflow (during rainfall events)	N/A	N/A
TOTAL	35,000	5,000,000*

* Total flows from the entire planning area

E. ALTERNATIVES ANALYSIS

Several alternatives, including a "No-action" alternative, were evaluated for Collection System forcemain and reuse lines in the October 15, 2007, facilities plan. A summary discussion of the

evaluation of each alternative for collection system forcemain and reuse lines and the selection of the recommended plan follows:

NO ACTION

The "No-action" approach was not a viable alternative. Traditionally, undeveloped residential areas have been utilizing septic tanks and onsite drainfields for sewage treatment and disposal because of the availability of land. The soils in the proposed project area are not optimal for septic tanks. The Authority desires to protect public health and the environment by controlling the method of sewage treatment and disposal and providing permitted treatment and disposal to these areas. This alternative is not protective of public health and the environment and, therefore, this alternative is rejected.

ALTERNATIVES FOR COLLECTION

Gravity Collection System with Pumping Stations

This alternative consists of a gravity sewer collection system with 13 pumping stations and 84 manholes to convey the effluent from the project area to the Logue Road WWTP. In some cases the pipes need to be placed in trenches as deep as 30 feet. This was not the most cost-effective alternative and was rejected.

Forcemain Collection System

This alternative consists of installing 12-inch diameter PVC transmission forcemains in place of the 8-inch and 10-inch diameter gravity sewer lines. This was not the most cost-effective alternative and was rejected.

Collection System Transmission Forcemains and Reuse Lines

This alternative consists of the installation of forcemain interceptors and reuse lines in the same trench in 5 areas of the Authority's service area to transport wastewater to the Logue Road WWTP for treatment and reuse. The reuse lines eliminate discharges to streams in the planning area. This alternative was the most cost-effective and was selected.

F. ENVIRONMENTAL CONSEQUENCES; MITIGATIVE MEASURES

The environmental benefits of this project will be to avoid septic system failures by connecting to a professionally maintained and operated and reliable sewer system. The recirculation and reuse lines eliminate discharges to streams in the planning area.

During the construction phase, short-term environmental impacts due to noise, dust, mud, disruption of traffic, runoff of silt with rainfall, etc., are unavoidable. Minimization of these impacts will be required; however, many of these minimization measures will be temporary and only necessary during construction. Using the following measures to prevent erosion will minimize impacts on the environment:

1. Specifications will include temporary and permanent measures to be used for controlling erosion and sediment.

2. Soil or landscaping maintenance procedures will be included in the specifications.

3. The contractor will develop an Erosion Control Plan. It will contain a construction schedule for each temporary and permanent measure controlling erosion and sediment. It will include the location, type, and purpose for each measure and the times when temporary measures will be removed or replaced.

These measures, along with requiring the contractor to return the construction site to as-good-as or better-than its original condition, will prevent any adverse impacts due to erosion.

G. PUBLIC PARTICIPATION; SOURCES CONSULTED

A Public Meeting was held on January 2, 2008, at 7:00 p.m., local time. The selected plan for the wastewater collection and reuse lines project and user charges were described to the public, and their input was received. This agency is not aware of any unresolved public objections that may have been voiced before or after the public meeting regarding this project.

The annual median household income for the Authority's customers is $62,426. The current sewer user rate for the typical residential user (5,000 gallons per month) is $43.88. The existing user charges are projected to be sufficient to repay the SRF loan. Therefore, no incremental increase in user charges will be required.

Sources consulted about this project for information or concurrence were:

1. Tennessee Department of Agriculture
2. Tennessee Department of Economic and Community Development (ECD)
3. Tennessee Department of Environment and Conservation (TDEC), Division of Air Pollution Control (DAPC)
4. Tennessee Department of Transportation (TDOT)
5. TDEC, Division of Groundwater Protection (DGWP)
6. Tennessee Historical Commission
7. TDEC, Division of Archaeology (DA)
8. TDEC, Division of Natural Areas (DNA)
9. TDEC, Division of Solid Waste Management (DSWM)
10. TDEC, Division of Water Pollution Control (DWPC)
11. TDEC, Division of Water Supply (DWS)
12. Tennessee Wildlife Resources Agency (TWRA)
13. United States Army Corps of Engineers (USACE)
14. United States Fish and Wildlife Service (USF&W)
15. Water and Wastewater Authority of Wilson County (Authority)
16. Wilson County
17. Adenus, Smyrna, TN (Engineering Consultants to the Authority)

H. SPECIAL CONDITIONS

The State Revolving Fund loan agreement will have the following special conditions:

1. An archeological survey is required for the proposed project areas depicted on figures labeled Attachment A-1 and Attachment A-2. Copies of the report must be submitted to the Tennessee Historical Commission, the State Division of Archeology, and the SRF Loan Program.

2. The Division of Natural Areas has required that a biological survey must be conducted to assess any potential impacts to the federally endangered Braun's rockcress (Arabis perstellata), leafy prairie-clover (Dalea foliosa), and Tennessee purple coneflower (Echinacea tennesseensis). Copies of the survey must be submitted to the US Fish and Wildlife Service, the State Division of Natural Areas, and the SRF Loan Program.

3. The Water and Wastewater Authority of Wilson County shall obtain applicable Section 10/404 Permits from the U. S. Army Corps of Engineers prior to approval of plans and specifications. A letter from the Corps stating that the permits are not needed will obviate this requirement.